



(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 619 175 A3

(12)

## EUROPEAN PATENT APPLICATION

(88) Date of publication A3:  
13.03.1996 Bulletin 1996/11(51) Int. Cl.<sup>6</sup>: B29C 65/20, A61M 39/00,  
B29C 65/78  
// B29L23:22(43) Date of publication A2:  
12.10.1994 Bulletin 1994/41

(21) Application number: 94101709.7

(22) Date of filing: 04.02.1994

(84) Designated Contracting States:  
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL  
PT SE(72) Inventor: Spencer, Dudley W.C.  
Wilmington, DE 19803 (US)

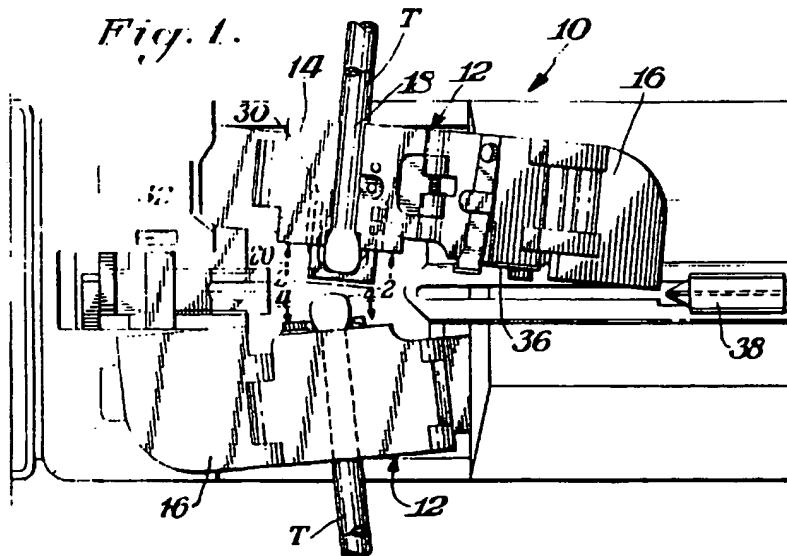
(30) Priority: 11.03.1993 US 29704

(74) Representative: Wagner, Karl H.  
WAGNER & GEYER  
Patentanwälte  
Gewürzmühlstrasse 5  
D-80538 München (DE)(71) Applicant: DENCO, INC.  
Wilmington, DE 19809 (US)

## (54) Sterile containment welding device for plastic tubes

(57) A sterile containment welding device for plastic tubes (1) comprises a pair of side by side spaced tube holders (12). Each of the tube holders includes a clamp base and a clamp lid (16). A pocket is provided in each clamp base extending completely across the clamp base so that a plastic tube could be inserted into the pocket and clamped in the holder when its clamp lid is moved to a closed position. Pockets of the side by side tube holders are alignable with each other to permit a plastic tube in one of the holders to be welded to the plastic tube in the other of the holders. A tube locating member (20) is

movably mounted at the end of each pocket in the space between the holders. The tube locating member has a wall disposed in the space beyond the pocket for positioning its plastic tube in the proper position for the later welding step when its tube is moved into contact with the walls. An inactivating member is mounted to each clamp lid to contact the tube locating member and move it out of contact with its plastic tube upon the closing of the lid so that the tubes are exposed to be heated and welded together.





European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number  
EP 94 10 1709

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.)
D, Y	US-A-4 753 697 (SHAPOSKA JOHN B ET AL) 28 June 1988	1-10	B29C65/20 A61M39/00 B29C65/78 //B29L23:22
A	* the whole document * ---	8, 9	
Y	DE-A-26 24 668 (YOKOHAMA RUBBER CO LTD) 27 January 1977	1-6	
A	* figures * ---	7	
Y	DE-A-21 12 167 (PFAFF INDUSTRIEMASCHINEN GMBH) 16 November 1972	7-10	
	* figures * ---		
P, A	EP-A-0 576 041 (RAFELD KUNSTSTOFFTECHNIK GMBH) 29 December 1993	1, 3, 7, 8	
	* figures * ---		
A	US-A-4 793 880 (SHAPOSKA JOHN B ET AL) 27 December 1988	3, 6	
	* figures 13, 43, 44 * ---		
A	EP-A-0 483 478 (DENCO INC) 6 May 1992	4	TECHNICAL FIELDS SEARCHED (Int.Cl.)
	* figures 16, 17 * ---		B29C
A	EP-A-0 508 474 (DENCO INC) 14 October 1992	4, 6	
	* column 12, line 30 - line 33; figures 8-10 *		
A	EP-A-0 515 811 (DENCO INC) 2 December 1992	5	
A	FR-A-2 207 010 (SEMPERIT AG) 14 June 1974	1, 2, 6	
	* figure 2 *		
A	US-A-2 384 014 (G.A. CUTTER) 4 September 1945	1	
	* column 1, line 51; figures *		
	---		
		-/--	
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	18 December 1995	Cordenier, J	
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone	T : theory or principle underlying the invention		
Y : particularly relevant if combined with another document of the same category	E : earlier patent document, but published on, or after the filing date		
A : technological background	D : document cited in the application		
O : non-written disclosure	L : document cited for other reasons		
P : intermediate document	& : member of the same patent family, corresponding document		



European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number

EP 94 10 1709

DOCUMENTS CONSIDERED TO BE RELEVANT									
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.S)						
E	EP-A-0 583 582 (DENCO INC) 23 February 1994 * figure 15 * ---	4							
D, E	EP-A-0 599 057 (DENCO INC) 1 June 1994 * the whole document * -----								
TECHNICAL FIELDS SEARCHED (Int.Cl.S)									
<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of completion of the search</td> <td style="width: 34%;">Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>18 December 1995</td> <td>Cordenier, J</td> </tr> </table>				Place of search	Date of completion of the search	Examiner	THE HAGUE	18 December 1995	Cordenier, J
Place of search	Date of completion of the search	Examiner							
THE HAGUE	18 December 1995	Cordenier, J							
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document							